MEETING SUMMARY

CALIFORNIA WATER PLAN UPDATE 2013
WATER QUALITY CAUCUS
9:00 A.M. – 11:00 A.M.
815 S STREET, SACRAMENTO, CA

Meeting Objectives

1. Review water quality (WQ) content in Update 2009 "California Water Today."
2. Discuss WQ content for Update 2013 "California Water Today."

Welcome, Background and Agenda Review

The Water Quality Caucus met on June 28, 2012 to discuss content for the section on California Water Today for Update 2013. Introductions were made around the room and on the phone. Lisa Beutler provided a brief recap of water quality in the Water Plan. In Update 2005, the Water Plan emphasized the relationship of water quality to water supply discussions. For Update 2009, the Advisory Committee included greater representation of water quality interests. The two issues are now seen as integrated. The evolution of this topic relied also on the passion of DWR staff with expertise on this subject. Jose Alarcon opened the meeting and welcomed all participants, reviewing the agenda and moving into the first presentation.

General Comments

Comment: In general, this is good approach to take. The materials seem to focus on drinking water.

Question: Will water quality be covered for **other beneficial uses**? This is an issue, especially regarding the aquatic life and fisheries problem in the Delta that impact not only environmental issues, but the ability to find a fix. Recreation and riparian habitat are other considerations.

Response: That is the basis for the day's meeting – to obtain input on what else needs to be addressed.

Comment: Consistent with other uses of water is the topic of cultural uses. Also, the overall evolution of this topic needs to emphasize the **Federal component** – regarding Federal lands and agency programs

WQ Content for California Water Today

Jose Alarcon explained that this section of the Water Plan contains two areas: current conditions and critical challenges. In 2009, the discussion of current conditions for water quality provided more discussion on regulation and looked at statewide water supply numbers. Mr. Alarcon asked if the caucus members would like to continue having the text focus on statewide perspectives. The critical challenges section focused on contamination of surface water and groundwater. Caucus members were asked if the water quality content should continue to break out these two areas.

Discussion

- **Governance** is an important element in terms of integrating the text. There are Federal, State, Tribal and local lands, with attending governance structures for addressing the water conditions or contaminants. These jurisdictional issues come into play regardless of where the water quality consideration occurs. The topic of water governance should be elevated and discussed before describing water conditions.
- This issue of **governance** is brought up on page 4-27 (in Update 2009). There may need to be links that connect the different sections of Volume 1. It also relates to the section on Companion Plans. Perhaps the discussion of governance can be brought into one area to emphasize it, then add links.
- The challenges that we face are cost-benefit and **balancing of competing uses**. Mercury is an example of this. How can legacy contaminants be resolved? Can they be resolved? Development of wetlands, to enhance fisheries, may increase methylation. Trade-offs and balances must be considered.
- The bigger story for Update 2013 may be the discussion of **integration and balancing** and looking at the potential for unintended consequences.
- Water conditions today are the result of demands that have consequences for the way we think about water. How are beneficial uses balanced? If that's the story we want to tell in this chapter, what are the key messages to include?
    - Explain connections and conflicts to water demands.
    - Include language to **point to the RMSs** (this would be a good location to introduce the RMSs)
    - Explain that this section represents the statewide perspective, direction and policies. **Point readers to the Regional Reports** for regional issues.
- While the Water Plan is the State's strategic plan, it looks at the internal and external influences on water in the State. This includes Federal standards and programs. (Consider mentioning in California Water Today, in the governance section.)

Public Health

- The vast majority of water systems in the State are **small water systems**. The enforcement authority, and related educational component, is delegated to the counties. With the current budget cutbacks, the trend has been that more counties are giving these programs back to the state. Many systems are still under the review of counties, which might involve a one-person shop. There are more regulations and resources are being stretched thin. Enforcement may be lacking. There are still disadvantaged/environmental justice (DAC-EJ) communities drinking nitrate-laden water in the valley. This is due, in part, because local agencies are over-burdened or don't have adequate resources to address the problem. There are not many incentives for counties to have a well-performing small water system program. If counties are going to administer these programs, they need to be adequately staffed. Local-promissee agency agreements may not be adhered to, and can be significantly out of date. Monitoring needs to be timely and often doesn't happen. There are lofty goals and MCLs on new contaminants. It's hard to

make sure that all of this happens on the ground. (This may also relate to Companion Plans governance.)

- This is a problem. Counties that maintain oversight often focus on communities with the worst problems. Less attention is given to communities that are only one water break away from a critical situation. The State regulates systems over 15 connections. Counties regulate systems with between 5-14 connections. Systems with 0-4 connections are regulated by the counties, generally through some initial development requirement. When county programs are returned to the State, the systems with 5-14 connections are written of wholesale. Counties may also regulate community water systems having 15-199 connections.
- About 2 million people in the state have a water system with less than 5 connections. This is from the draft AB2222 report on community water systems.
- There is also limited information. The Water Plan data on groundwater comes from public water wells. Information on **shallow groundwater conditions** is missing. In those areas where domestic well water quality has been looked at, about 25% have bacterial contamination and about 10% statewide have nitrates. Shallow groundwater is more contaminated, resulting in this type of dual system where areas covered by public systems have very good, very safe water. In other areas, such as Mountain Counties, up to 80% of the population is on public wells. This creates a disproportionate regulatory map of the State. It could be described in the overview.
- It's not just the numbers that we aren't getting. It's the numbers we are getting and we can't do anything about. The small systems that are already regulated, aren't regulated adequately. What is the **long-term impact on state's water supply and public health** of not taking care of this? Unless we put a stake in the ground, it's going to get worse. There are low levels of funding and the systems continue to be out of compliance with the surface water treatment rule. After a while, systems have been out of compliance for years. Ultimately, the backburner stuff comes to the forefront – so prioritization just delays the inevitable.
- As the population increases, we have our own impact on water quality. Many problems are manmade. How do we flip that around?
- Not all water quality issues are manmade, arsenic is the most difficult one.
- At some point, someone has to make an unpopular decision. Development gets political and no one really wants to take strategic action.
- The **Finance Plan** could potentially discuss unfunded mandates. All funding ultimately comes from a taxpayer source. It's critical to look at how to most logically fund activities into the future. It would be good to set that discussion up here – discussing the fiscal need and **resource constraints**. What should be funded at local or statewide levels? Those are the questions being looked at in the finance plan. We can make the argument that there needs to be a state investment in this type of work. This needs to be a strong statement supported with examples and a description of impacts.

Domestic Systems and Public Systems

- Urban sprawl is a problem and SB 375 relates to this, looking to blueprint where development should occur. In the Central Valley, Policy Link is doing a community equity initiative and analyzing unincorporated communities. The areas with service discrepancies are those in the peri-urban areas, which are still on septics and small systems – even though they are only feet from a public system. This is an unnecessary waste of resources. There is no incentive for the city to hook up to a poor community, since there is a concern that sewer bills won't be paid.
- Sacramento Sanitation serves about 1.3 million people. In the unincorporated areas, there are about 3,500 septics within the urban areas. It's very costly to hook up to sewer, and can cost up to $50,000. The district is prohibited from paying for that with rate-payer funds.
- There was a house bill introduced last year, to provide loans for laterals, where the loan repayment was part of the property taxes. Loans may still not be affordable, and putting a lien against sale of the house is another consideration.

New WQ Content or Emphasis for California Water Today

Mr. Alarcon highlighted three areas that could receive additional discussion in this section:

- Water quality and protecting public health
- water quality and the environment
- the relationship between water quality and water supply reliability

Workshop participants were encouraged to add new topics that should be considered as well.

Discussion on Current Conditions

Question: Where does **stormwater**, and its impacts on water quality, come in? The Water Boards have promulgated industrial stormwater standards. In the last five years, stricter stormwater standards have been enacted across the state. It seems like a significant item.

Response: This is addressed in the urban runoff management strategy.

Comment: It should be mentioned here, especially regarding road runoff. The idea of discussing it in terms of impact is helpful.

Mr. Alarcon asked if the current conditions should list impaired water bodies – along with a **description and extent of the impact and the statewide cumulative impact**. There was a question about what types of connections being made regarding water quality and public health. For example in talking about mercury and subsistence fishers, would the section say that statewide mercury contaminates X% of the waterways – and then to discuss impacts, such as fish are not able to travel upstream from the ocean without ingesting mercury? People then consume the fish. The role of the chapter is to help people understand the conditions.

Other new topics to consider for the water quality include:

- fracking and oil extraction (Montery, LA counties); is starting to become part of
- geo-thermal and impacts on aquifers and hotsprings (water clarity is changing)
- alternative energy water requirements – water is needed for construction, O & M, and emergency response – what are the consequences for supply, demand and groundwater levels
- illegal marijuana labs and chemical uses and dumping in forests – and impacts on water quality

Question: How does the **impact of flows** get connected to water quality? This is a significant aspect of water quality. Flow criteria is a major discussion.
Comment: It would be good to have this incorporated into this chapter. It will take some creative thinking.
Comment: Wendy Phillips volunteered to review an initial outline.

Comment: There should be a discussion about the relationship between groundwater and surface water withdrawals, specifically **well closures and alternate sources**. When wells exceed standards, large systems close wells. Small systems need to close their well and may not have an alternate source. (Fresno closed 20 wells or 8% of their wells over the last few years, due to nitrates. Modesto has closed 6 wells. Ripon, a smaller community, closes about one well a year.) Less water is used as a result on conservation efforts, and results in reduced flows, which increases pressure on surface water sources.

Comment: The **303 (d) list** is being used to help convey the magnitude of water quality, and can help show trends. Some water bodies have become impaired, others have improved, or been steady, even with population growing. There are lots of factors that affect listings (detection, science).

Comment: It would be helpful to see evaluations of the policies, for example the Clean Water Act or CEQA. Do these have enough teeth? Are people complying? There are other policies that impact water, like air quality.
Comment: The narrative on the Clean Water Act is important, especially for point-sources.

Discussion on Contaminants

Jose Alarcon conducted a brief review of the topics addressed in Update 2009 for this section. He referred participants to a worksheet that listed potential content for Update 2013. The following points surfaced in the conversation about this section:

- It makes sense to separate out surface water and groundwater contamination.
- Regarding surface water quality, it's important to discern between environmental water and reservoir water. Water behind dams has mercury issues and drinking water issues such as algae formation (which could be worse with climate change).

- In looking at challenges, one way to integrate this is to talk about looking at challenges from a watershed approach – whether it's flows, discharges or stormwater – and they need to be managed effectively. That comes back to regional and **integrated monitoring**. How can monitoring be integrated to better understand water quality and make appropriate policy decisions? This is moving forward in some areas of the State, in trying to coordinate agency-specific data sets – which relates back to governance. As you have this data, things change, and there is the need to adaptively manage on a continuous basis.
- The capacity to respond to increasing water challenge is a challenge in itself.
- The discussion on contamination should mentioned long-term to irreversible impacts.
- Catastrophic fire also links to short-term contamination, with sediment and debris from flash floods.
- There is **funding** for capital investment for water treatment facilities, but not for O & M.

Discussion on Groundwater

- We're talking about how to balance groundwater. Once it's polluted, it takes a long while to clean up. Salinity a good way to talk about this, since every region is putting together a salinity management plan. How do you manage groundwater for the long term – you can use SAWPA as an example. On the supply side, overdraft will be mentioned. It would be nice have a comparison of overdraft and water quality since this is a salinity issue as well.
- It's not clear how perchlorate factors into this. It does have a drinking water standard and may not just be another listed contaminant.
- Arsenic may be a better chronic problem to highlight. Large systems can use dilution to reduce the levels. People continue to drink it, because it's not acute. It's expensive to treat and is found throughout the state. It's ubiquitous and so common for small systems. It's linked to supply, since as you dig deeper you are more likely to encounter it.
- It is important to highlight overdraft and the impacts associated with it. It may not be helpful to focus on arsenic and other "natural" contaminants. In urban areas, there are a slew of industrial contaminants that impact local resources. These impacts disrupt pumping patterns and necessitate wellhead treatment. Some wells are closed which increases demand in imported water and costs. Industrial contaminant to developed resources.
- Perchlorate may not be the best example of an industrial contaminant. In San Gabriel Valley, industrial contamination is a huge issue and directly relates to water supply reliability.
- It may be better to focus on a suite of contaminants, rather than a single one.
- There should be a discussion of the regulation of groundwater and water quality. While the Water Boards have the authority to regulate water quality, they do not have the resources to do that – especially in areas with small systems. Practically, it's not possible for the Water Board to regulate all the practices that impact groundwater.
- How do groundwater contaminants affect agriculture and vice versa?

Other Comments

- We are now seeing a global impact from tsumani debris and nuclear impact, with effects to ocean water quality.
- Use this section as an opportunity to highlight what has worked.

Next Steps

This section needs to talk about conditions in a straight forward way, looking at the trade-offs, balances and stressors that are putting us on the precipice – and then describe the tough challenges about how to do that. This highlights the need for integrated management.

The team will also reconsider the governance section in Chapter 3. This includes adding text on Federal programs and agency and will specifically connect with BIA and Indian Health Services.

Elements from the report on "Californians without Safe Water" would be added under critical challenges. This report focuses on drinking water and wastewater for small systems. The report will also link to the objectives on DACs. (This was Objective 13 in 2009). Where information is regional, data will be put in the regional reports.

The message is that if we don't manage these issues together, we are in trouble. Technology contaminants, reduced flows and climate change are all complicating the situation.

Key Elements for Challenges:

- Surface water must be managed holistically
- Understand how normal practices affecting groundwater, including long-term impacts
- Technological processes are introducing new contaminants
- System capacity to respond – the state of water quality infrastructure (staff, sewers, data)

Attendance

Donna Miranda-Begay, Tubatulabals of Kern Valley
Terry Mitchel, Sacramento Regional Sanitation District
Jose Alarcon, DWR
Lewis Moeller, DWR

Via webinar:
Troy Boone, County of Santa Cruz
Jennifer Clary, Clean Water Action
Carol Hall, Kleinfelder
Chuck Jachens, Bureau of Indian Affairs
Wendy Phillips, League of Women Voters

Facilitation: Lisa Beutler, MWH, Executive Facilitator; Judie Talbot, CCP, Facilitation Support